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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,592	08/16/2007	Satoshi Iyanagi	Q96930	3391
23373 7590 04/01/2011 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER KNABLE, GEOFFREY L				
ART UNIT		PAPER NUMBER		
1747				
NOTIFICATION DATE		DELIVERY MODE		
04/01/2011		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com  
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**Office Action Summary****Application No.**

10/591,592

**Applicant(s)**

IYANAGI, SATOSHI

**Examiner**

Geoffrey L. Knable

**Art Unit**

1747

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 January 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-11 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-912)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 7-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The apparently inadvertent "and" at the end of the last line of claim 7 raises some confusion.

The scope of claim 8 is still entirely indefinite and confusing as it is not clear which *if any* of the claim 7 requirements are positively required to practice this method. In other words, it is not clear what additional method step is required by simply characterizing the tire as "built with the tire building system according to claim 7". That its, this reference to claim 7 could be read as simply further defining the tire, not a specific requirement on what apparatus is used in the method to "set up" the tire manufacturing process and thus arguably not specifically requiring the apparatus features of claims 7. Put more concretely, it seems that the scope of this claim is arguably sufficiently broad to read on any tire building process in which a width of tire to be built is simply initially selected, regardless of the tire building system to be used (the claimed reference to the tire building system of claim 7 being then simply an intended system to be used rather than defining a further claimed step that would require any of the claim 7 features to satisfy the claim). The scope of this claim is therefore indefinite. Applicant's arguments with respect to this rejection of claim 8 urge that reference to a preceding claim is an acceptable claim format. It is not disputed that it is an acceptable

claim format to refer to a preceding claim. The problem is not the reference to the preceding claim itself but rather that the scope of protection afforded by this claim is not readily ascertainable. The previous 112 rejection of claim 9 has however been withdrawn as it is clear that the method requires that use of the complete tire building drum of claim 1 is required to practice the claimed method.

3. Claims 1, 2, 5, 7, 8 and 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rost (US 4,138,307 - newly applied).

Rost discloses a tire building drum including bead lock means (21/22/51) and a circular drum core comprising rigid segments (12) which are radially expandable/contractible (note arrow "15"). Further, the drum includes aligned distance pieces (26/27) and end pieces (12 and/or 29). Further, the end pieces (12 and/or 29) are clearly thicker than the distance pieces in the width direction of the drum. Further, from the described mechanical construction of the drum (e.g. with distance pieces individually mounted to be slidable on tube 23), it would have been understood that the distance pieces (26/27) are or should be detachable. This therefore anticipates or renders obvious claims 1 and 7. As to claim 2, note column 23 guidably and slidably supporting both end pieces 29 and distance pieces 26/27, the end and distance pieces thus including an engagement portion as claimed. As to claim 5, the drum is capable of being used to build any type of tire. As to claim 8, setting up the Rost drum clearly includes selecting a width of tire to be built with the width being determined by the total

thickness of the distance pieces. As to claim 10, the drum width is varied by changing the total thickness of the distance pieces.

4. Claims 1, 5, 7, 8 and 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bertrand et al. (US 3,745,085 - newly applied).

Bertrand et al. disclose a tire building drum including bead lock means (7/16) and a circular drum core comprising rigid segments (2) which are radially expandable/contractible (note col. 2, lines 65-68, it being implicit or certainly obvious that if radial expandable, the drum would be segmented). Further, the drum includes aligned distance pieces (10) and end pieces ("2" on either side of "10"), it being apparent in view of col. 2, lines 63-65 that plural detachable distance pieces/spacer elements (10) may be provided to vary the drum axial dimension. Further, the end pieces are clearly thicker than the distance pieces in the width direction of the drum. This therefore anticipates or renders obvious claims 1, 7 and 10. As to claim 5, the drum is capable of being used to build any type of tire. As to claim 8, setting up the Bertrand et al. drum clearly includes selecting a width of tire to be built in view of col. 2, lines 63-65.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rost (US 4,138,307 - newly applied) or Bertrand et al. (US 3,745,085 - newly applied) as applied to claim 1 above, and further in view of Landsness (US 4,547,251 - newly cited) or JP 2002-28986 to Takagi (newly applied).

To include comb pieces between circumferentially adjacent segments would have been obvious in view of Landsness and JP '986 to assure complete support for the overlying tire building at different drum circumferences.

6. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rost (US 4,138,307 - newly applied) or Bertrand et al. (US 3,745,085 - newly applied) as applied above, and further in view of Caretta et al. (US 2003/0170336).

Affixing appropriate identification of a drum configuration for tracking and process/quality control purposes would have been understood as typical and obvious in this art - Caretta et al. is exemplary of use of any type of identification for tire building drums (e.g. paragraph [0119]). Although Caretta et al. only specifically mentions a bar code, RFID tags are taken to be an extremely well known and obvious alternative to bar codes with well known enhanced functionality and would provide only the expected and predictable results.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rost (US 4,138,307 - newly applied) or Bertrand et al. (US 3,745,085 - newly applied) as applied above, and further in view of Mallory et al. (US 3,776,802).

As to claim 9, in view of Mallory et al., typical and obvious tire building includes steps where the beads are locked (fig. 7), the center is radially expanded while approaching the bead cores 9 (figs. 8-9), the carcass is turned around the beads (fig. 10) and the tread is applied (fig. 11).

8. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. Applicant's arguments with respect to the prior art have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendments to the claims. The 112 rejections not repeated have been withdrawn. The arguments with respect to the remaining 112 rejections have been treated within the statement of rejection.
10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey L. Knable/  
Primary Examiner, Art Unit 1747

G. Knable  
March 28, 2011